

**RECEIVED
CENTRAL FAX CENTER**

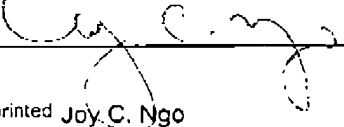
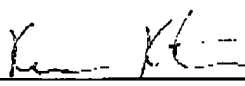
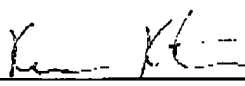
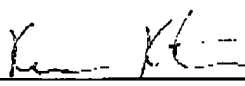
OCT 14 2008

Doc Code: AP.PRE.REQ

PTO/SB/33 (09-08)

Approved for use through 10/31/2008, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 200311026-1							
I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number (571) 273-8300 on <u>October 14, 2008</u> Signature <u></u> Typed or printed name <u>Joy C. Ngo</u>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Application Number 10/697,821</td> <td style="padding: 2px;">Filed 10/29/2003</td> </tr> <tr> <td colspan="2" style="padding: 2px;">First Named Inventor Robert Cochran</td> </tr> <tr> <td style="padding: 2px;">Art Unit 2821</td> <td style="padding: 2px;">Examiner Vy, Hung T</td> </tr> </table>		Application Number 10/697,821	Filed 10/29/2003	First Named Inventor Robert Cochran		Art Unit 2821	Examiner Vy, Hung T
Application Number 10/697,821	Filed 10/29/2003								
First Named Inventor Robert Cochran									
Art Unit 2821	Examiner Vy, Hung T								
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table style="width:100%;"> <tr> <td style="width:50%; vertical-align: top;"> <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>33004</u> <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____ </td> <td style="width:50%; vertical-align: top; text-align: center;">  _____ Signature Ken J. Koestner _____ Typed or printed name (949) 251-0250 _____ Telephone number October 14, 2008 _____ Date </td> </tr> </table> <p><small>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</small></p>				<input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>33004</u> <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	 _____ Signature Ken J. Koestner _____ Typed or printed name (949) 251-0250 _____ Telephone number October 14, 2008 _____ Date				
<input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>33004</u> <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	 _____ Signature Ken J. Koestner _____ Typed or printed name (949) 251-0250 _____ Telephone number October 14, 2008 _____ Date								
<input type="checkbox"/> *Total of _____ forms are submitted.									

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**RECEIVED
CENTRAL FAX CENTER**

OCT 14 2008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Robert Cochran and Jeffrey D. Ferreira-Pro
Assignee: Hewlett-Packard Development Company L.P.
Title: HIERARCHICAL STORAGE SYSTEM
Serial No.: 10/697,821 Filing Date: October 29, 2003
Examiner: Vy, Hung T Group Art Unit: 2821
Docket No.: 200311026-1 Confirmation No.: 9535

Irvine, California
October 14, 2008

MAIL STOP AMENDMENT
COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

REMARKS IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

This paper is being filed with the Pre-Appeal Brief Request for Review responsive to the Final Office Action dated July 14, 2008, having a shortened statutory period expiring October 14, 2008. Further examination and reconsideration are respectfully requested in view of the amendments set forth below.

KIM SINEW BERTANI LLP
2102 MARTIN ST
SUITE 150
IRVINE, CA 92614-2550
TEL: (949) 351-0250
FAX: (949) 351-0250

**OMISSION OF ESSENTIAL ELEMENTS REQUIRED TO ESTABLISH A PRIMA
FACIE REJECTION**

Rejection of Claims under 35 U.S.C. §102

Claims 1-4 and 10-13, 18-22 and 24-25 are rejected under 35 U.S.C. §102(e) as being anticipated by Belsan et al. (US Patent No. 5,403,639). The rejections are improper at least because Belsan does not disclose "a storage array comprising a cabinet [and] . . . storage devices contained within the cabinet of at least three different and distinct controller-to-storage device bus interface technology types." Accordingly, applicants disclose a storage array contained within a single cabinet that include at least three different and distinct bus interface technology types. The file server system (1) disclosed by Belsan is silent with regard to containment within a single cabinet and relates to multiple different contained devices that intercommunicate. Applicants' claimed system that includes devices with multiple different bus interface technology types in a single contained array enables extra storage space to be accessed without constraints of LUN copy licenses, pre-assignment, or pre-configuration for unexpected and temporary or critical usage within a storage array.

In contrast, Belsan discloses, as shown in Figures 1 and 2, storage array units that individually contain only a single controller-to-storage device bus interface technology type in addition to a cache type. Column 4, for example at lines 34-38 and 60-64, of Belsan describes combinations of media of different types in distinct arrays and devices, but not a single, contained disk array that includes multiple bus interface technology types.

Column 3, lines 30-35, of Belsan describes "media used to store the data can be a disk array or any other media or combination of media such as a disk array in combination with a backend automated magnetic tape cartridge library system including a plurality of tape drives such that the file server system comprises a hierarchical data storage system containing multiple types of media" which relates to combinations of media of different types in distinct arrays and devices, but does not describe a single, contained disk array that includes multiple bus interface technology types.

KOESTNER BERTAN ET AL
1102 MARTIN ST
SUITE 150
IRVINE, CA 92612
TEL (949) 251-0250
FAX (949) 251-0250

Belsan in Figure 2 and described in column 8, lines 15-20, clearly shows that the magnetic tape cartridges 10a and 10b are outside and separate from the data storage subsystem 100 and individual disk arrays 103-1. The Belsan description of Figure 2 in column 8, lines 29-48, teaches disk drives 122-1 to 125-r as significantly less expensive than typical form factor disk drives. However, the "less expensive" drives 122-1 to 125-r are the only drives in the array 100 so that Belsan does not describe a single, contained disk array that includes multiple bus interface technology types.

The claimed combination of an hierarchy of storage types within an individual array enables allocation of storage for different purposes without the overhead of network communication in systems such as that shown in Belsan in which the different storage technologies are in separate arrays.

Rejection of Claims under 35 U.S.C. §103

Claims 5-9, 14-17 and 23 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Belsan et al. (U.S. patent No. 5,403,639) in view of Lee et al. (US Patent No. 7,047,358). The rejections are improper because Belsan in view of Lee which do not disclose "a storage array comprising a cabinet [and] . . . storage devices contained within the cabinet of at least three different and distinct controller-to-storage device bus interface technology types."

KNOTTNER BUREAU
2192 MARTIN ST
SUITE 150
IRVINE CA 92612
TEL (949) 251-0250
FAX (949) 251-0260

RECEIVED
CENTRAL FAX CENTER

007/007

OCT 14 2008

CONCLUSION

Applicants believe all claims are in form for allowance and a notice to that effect is solicited. No new matter has been added. In the event it would facilitate prosecution of this application, the Examiner is invited to telephone the undersigned at (949) 251-0250.

I hereby certify that this correspondence is being facsimile transmitted to the USPTO (571) 273-8300 on the date shown below:

(Signature)

Joy C. Ng

(Printed Name of Person Signing Certificate)

October 14, 2008

(Date)

Respectfully submitted,

Ken J. Koestner
Attorney for Applicant(s)
Reg. No. 33,004

KOESTNER BERTANI LLP
2191 MARTIN ST
SUITE 150
IRVING, CA 92612
TEL (949) 251-0250
FAX (949) 251-0250